BUNCHUK, V.A.; YABLONSKIY, V.S., prof., doktor tekhn.nauk, red.; RAZUMOVSKAYA, T.Ya., red.; LEBEDEVA, D.V., tekhn.red.

[Temperature regimen of reservoirs; applying the theory of heat resistance to the temperature regimen calculation of reservoirs and the development of measures for reducing the evaporation losses of petroleum products] Temperaturnyi rezhim rezervuarov; primenenie teorii teploustoichivosti k raschetu temperaturnogo rezhima rezervuarov i obosnovaniiu meropriiatii po snizheniiu poter' nefteproduktov ot ispareniia. Pod obshchei red. V.S.IAblonskogo. Moskva, Otdel nauchno-tekhn. informatsii, 1958. 189 p. (MIRA 13:8)
(Petroleum--Storage)

RAZUMOVSKAYA, V. F.: Master Med Sci (diss) -- "Changes in the lungs in metastatic tuberculosis of the eyes". Moscow, 1959. 15 pp (Second Moscow State Med Inst im N. I. Pirogov), 250 copies (KL, No 10, 1959, 129)

KOCHNOVA, I.Ye., prof., TRIFONOVA, T.M., dotsent, PASHKOVSKAYA, V.F.

Seventh All-Union Congress of Phthisiatrists. Sov. med. 28
no.6:144-147 Je '65. (MIRA 18:8)

RAZUMOVSKAYA, V.F.; TRIFONOVA, T.M.

Complications in the antibacterial treatment of pulmonary tuberculosis.
Sov.med. 25 no.12:77-81 D '61. (MIRA 15:2)
(TUBERCULOSIS)

RAZUMOVSKAYA, V.F.; SUKHANOVSKIY, V.P.

All-Union Conference on Problems in the Control of Tuberculosis.
Sov. med. 25 no.10:148-152 O '61. (MIRA 15:1)
(TUBERCULOSIS--PREVENTION)

KOCHNOVA, I.Ye., prof.; SEMENOV, A.D., prof.; YEVDOKIMOVA, A.D., dotsent; [illegible]ZUMOVSKAYA, V.F., kand.med.nauk; TRIFONOVA, T.M.

Second All-Russian Conference of Phthisiologists. Sovet. med. 27 no.9:134-137 S'63 (MIRA 17:2)

RAZUMOVSKAYA, V.F., aspirant

Lung lesions in recurrent tuberculosis of the eye in patients receiving antibacterial preparations. Sov.med. 21 no.8:106-111 Ag '57. (MIRA 10:12)

1. Iz kafedry tuberkuleza (zav. - prof. I.Ye.Kochnova) II Moskovskogo meditsinskogo instituta imeni N.I.Pirogova.

(TUBERCULOSIS, OCULAR, compl.
pulm. & lymph node thuberc. appearing during successful ther. of eye tuberc. (Rus))
(TUBERCULOSIS, PULMONARY case reports,
appearance during successful chemother. of ocular tuberc. (Rus))
(TUBERCULOSIS, LYMPH NODE, case reports,
same)

BLUDOV, Mikhail Ivanovich; PERYSHKIN, A.V., retsenzent; SAKHAROV, D.I., retsenzent [deceased]; MINCHENKOV, Ye.Ya., retsenzent; RAZUMOVSKIY, V.G., red.

[Talks on physics] Besedy po fizike. Moskva, Prosveshchenie. Pt.2. 1965. 162 p. (MIRA 18:8)

RAZUMOVSKIY, Ye. E.

USSR/Cosmochemistry. Geochemistry. Hydrochemistry D

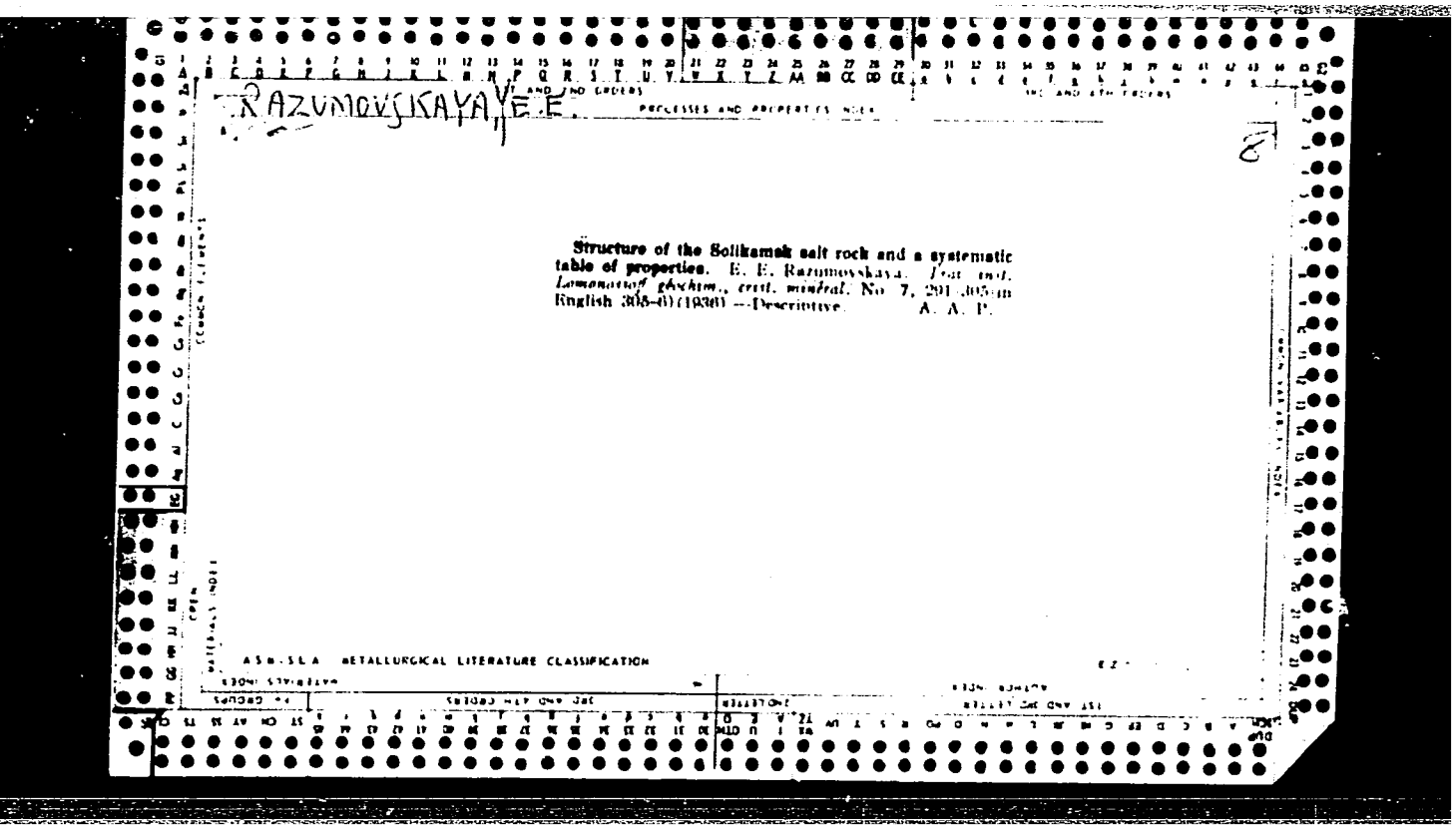
Abs Jour : Referat. Zhurnal Khimiya No 6 1957 18936.

Author : Ye.E. Razumovskaya.
Inst : All-Union Geological Scientific Research Institute.
Title : Upon the Character and Occurrence of Salt-Bearing Phases in Siberia.

Orig Pub : Materialy Vses. N.-I. Geol. In-ta 1956 vyp 8 261-267.

Abstract : It is noted that the salt-bearing phases are coordinated to the series of dolomites and limestones of the upper part of Cm_1 the red-colored arenaceous-argillaceous rocks of the bottom Cm_3 and the red-colored schists of S. The epochs of the salt formation were distinguished by similar palegeographic conditions and tectonic regime (hot and dry climate great development of shallow lagoon and sea waters early stage of the platform stability). The deposition of salts took place on the platform edges in deflections of the rim and in zones of transition to geosynclines. This

Card 1/2 -49-



RAZUMOVSKAYA, YE. E.

Structure of the Solikamsk salt rock and a systematic table of properties. E. E. Razumovskaya. *Trud. inst. Leningrad. gorn. inst., centr. mineral.* No 7, 201-305 (in English 305-6) (1936) —Descriptive. A. A. P.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

RAZUMOVSKAYA, Ye.E.; ZAYTSEV, I.K.; BASKOV, Ye.A.; DRAGUNOV, V.I.; PISARCHIK, Ya.K.

Prospects for finding oil and gas in the Siberian Platform. Mat.-VSEGEI Ob.ser. no.23:3-43 '59. (MIRA 14:11)
(Siberian Platform--Petroleum geology)
(Siberian Platform--Gas, Natural--Geology)

RAZUMOVSKAYA, Ye.E.

Classification and nomenclature of salt rocks. Trudy VSEGEI 72:74-84 '62. (MIRA 15:9)
(Salt deposits--Classification)

RAZUMOVSKAYA, Ye.E.

Geological and lithofacies characteristics of salt formations in the Siberian Platform. Trudy VSEGEI 66:5-20 '61. (MIRA 15:4)
(Siberian Platform--Salt deposits)

VOLKOV, Vasiliy Aleksandrovich; KURIMOV, Ivan Zakharovich; KATIN, A.F., retsenzent; KUPTSOVA, L.D., retsenzent; SUCHKOV, V.G., retsenzent; RAZUMOVSKAYA, Ye.V., red.

[Technology of leather] Tekhnologiia kozhi. Moskva, Legkaia industriia, 1964. 429 p. (MIRA 18:2)

FEDURKIN, V.V.; NESTERENKO, A.T.; KOVSHAROVA, L.A.; RAZUMOVSKAYA, Ye.I.; OSIPOVA, Ye.V.; VASIL'YEVA, G.S.; PEKARSKIY, M.D., otv.red.; ZVORONO, B.P., zamestitel' otv.red.; BOLDYREV, B.V., red.; VOLODIN, Ye.A., red.; DANIL'CHENKO, Ye.P., red.; ORSKIY, I.N., red.; MISHIN, L.N., red.; FREYDIN, G.S., red.; TSEPELEV, Yu.A., red.

[Technological instruction material; aluminum and aluminum alloys for medical articles] Rukovodiashchie tekhnicheskie materialy; aliuminii i aliuminievye splavy dlia meditsinskikh izdelii. Moskva, M-vo zdravookhraneniia, 1959. 70 p. (MIRA 13:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut meditsinskogo instrumentariya i oborudovaniya.
(MEDICAL INSTRUMENTS AND APPARATUS) (ALUMINUM)

YELISEYEVA, Valentina Ivanovna; RAZUMOVSKAYA, Ye.V., red.; BATYREVA, G.G., tekhn. red.

[Film forming polymers for leather finishing] Polimernye plenkoobrazovateli dlia otdelki kozhi. Moskva, Izd-vo nauchno-tekhn. lit-ry RSFSR, 1961. 236 p. (MIRA 15:2)
(Leather) (Finishes and finishing)

FRIDLYAND, Aleksandr Adol'fovich; NIKITIN, Georgiy Nikolayevich; TIMOKHIN, N.A., retsenzent; RAZUMOVSKAYA, Ye.V., red.

[Additional production from the wastes of leather and fur manufacture] Dopolnitel'naia produktsiia iz otkhodov kozhevennogo i mekhovogo proizvodstva. Moskva, Legkaia industriia, 1965. 211 p. (MIRA 18:12)

VOYUTSKIY, Sergey Sergeyevich, prof., doktor khim.nauk; SOKOLOV, S.I., doktor tekhn.nauk, retsenzent; RAZUMOVSKAYA, Ye.V., red.; KHAKNIN, M.T., tekhn.red.

[Autohesion and adhesion of high polymers] Autogeziia i adgeziia vysokopolimerov. Moskva, Izd-vo nauchno-tekhn.lit-ry RSFSR, 1960. 241 p. (MIRA 13:8)
(Polymers) (Adhesion)

RAZUMOVSKAYA, Ye.V.

LITVINA, Lyudmila Markovna; POPOV, I.S., retsenzent; KULICHEV, A.F., retsenzent; RAZUMOVSKAYA, Ye.V., redaktor; EL'KINA, E.M., tekhnicheskiy redaktor.

[Fashioning wearing apparel from checks and plaids] Modelirovanie odezhdy iz kletchatykh tkanei. Moskva, Gos.nauchno-tekhnicheskoe izd-vo Ministerstva promyshlennykh tovarov shirokogo potrebleniia SSSR, 1954. 61 p. (MLRA 8:3)
(Fashion)

Razumovskaya, Ye.V.

CHERNOV, Nikolay Vladimirovich, prof.; ARONINA, Yu.N., dots.; GAYDAROV, L.P., dots.; STRAKHOV, I.P., prof.; SHESTAKOVA, I.S., prof.; KOTOV, M.P., prof., retsenzent; MIKHAYLOV, A.N., prof., retsenzent; RAZUMOVSKAYA, Ye.V., red.; KNAKNIN, M.T., tekhn.red.

[Chemistry of the leather and fur industries] Khimiia kozhevennogo i mekhovogo proizvodstva. Pod boshchei red. N.V.Chernova. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po legkoi promyshl., 1957. 456 p. (MIRA 11:3)
(Fur) (Chemistry, Technical)
(Leather industry)

YELISEYEVA, Valentina Ivanovna; RAZUMOVSKAYA, Ye.V., redaktor;
MEDVEDEV, L.Ya., tekhnicheskiy redaktor.

[Theory and practice of finishing leather with dyes and varnish] Teoreticheskie osnovy i prakticheskie metody pokryvnogo krasheniia i lakirovaniia kozh. Moskva, Gos nauchno-tekhn. izd-vo Ministerstva promyshlennykh tovarov shirokogo potrebleniia SSSR, 1954. 252 p.
(MLRA 8:1)

(Leather industry) (Dyes and dyeing--Leather)

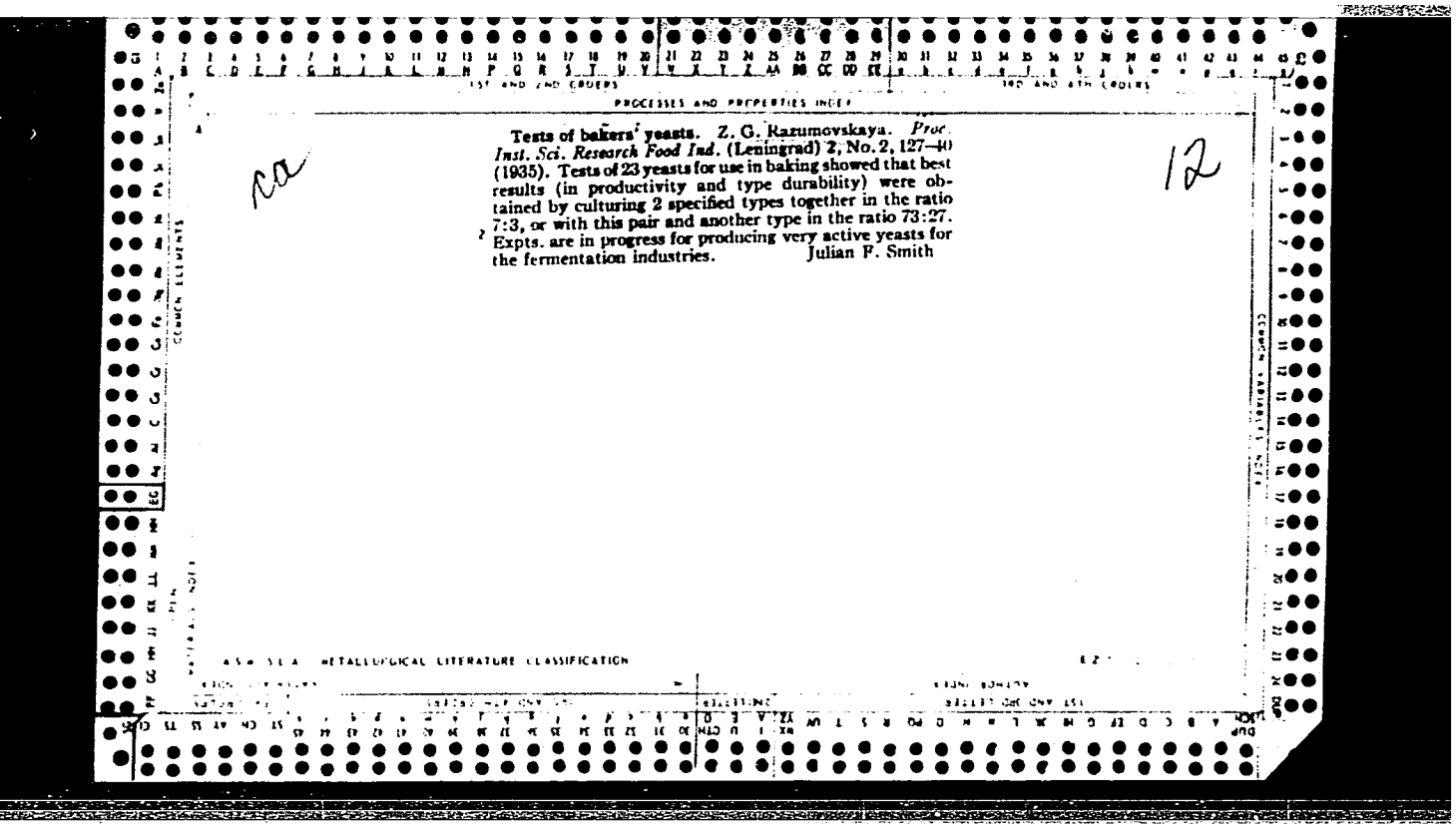
SHVEDSKIY, I.Ye; RAZUMOVSKAYA, Ye.V., redaktor; STRELETSKIY, I.A., tekhnicheskiy redaktor

[General footwear technology] Obshchaia tekhnologiia obuvi. Moskva, Gos.nauchno-tekhn. izd-vo legkoi, tekstil'noi i poligraficheskoi promyshlennosti, 1948. 529 p. (MLRA 8:7)
(Shoe industry)

YEZERSKIY, Grigoriy Yevseyevich; MUKHANOV, Grigoriy Vasil'yevich; RAZUMOVSKAYA, Ye.V., red.; BATYREVA, G.G., tekhn. red.

[Manufacture of light footwear and house slippers] Proizvodstvo legkoi i kommatnoi obuvi. Moskva, Rostekhizdat, 1962. 205 p. (MIRA 15:4)

(Shoe manufacture)



PROCESSES AND PROPERTIES INDEX

12a

Tests of bakers' yeasts. Z. G. Razumovskaya. *Proc. Inst. Sci. Research Food Ind.* (Leningrad) 2, No. 2, 127–40 (1935). Tests of 23 yeasts for use in baking showed that best results (in productivity and type durability) were obtained by culturing 2 specified types together in the ratio 7:3, or with this pair and another type in the ratio 73:27. Expts. are in progress for producing very active yeasts for the fermentation industries. Julian P. Smith

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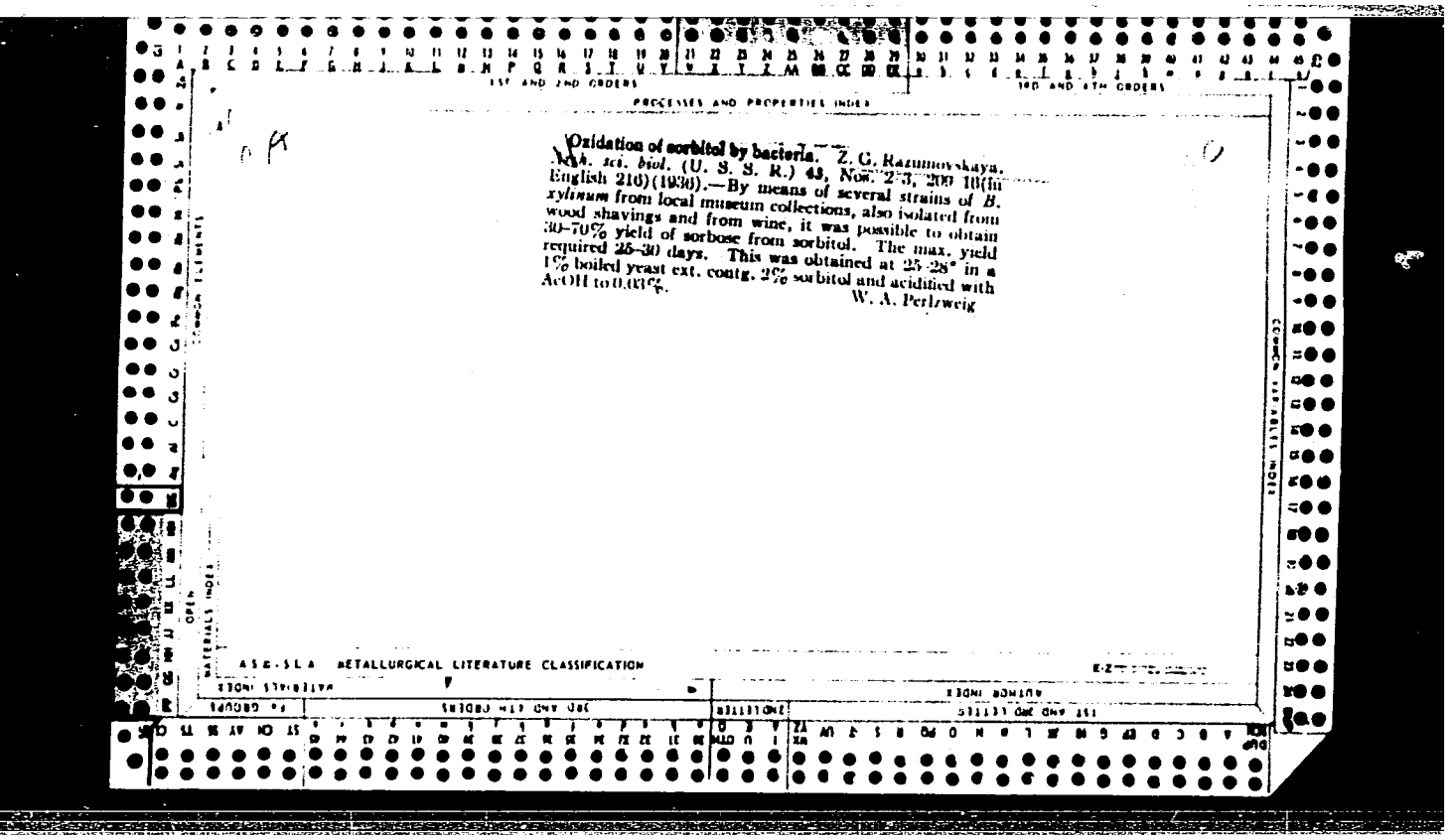
A.S.M. METALLURGICAL LITERATURE CLASSIFICATION

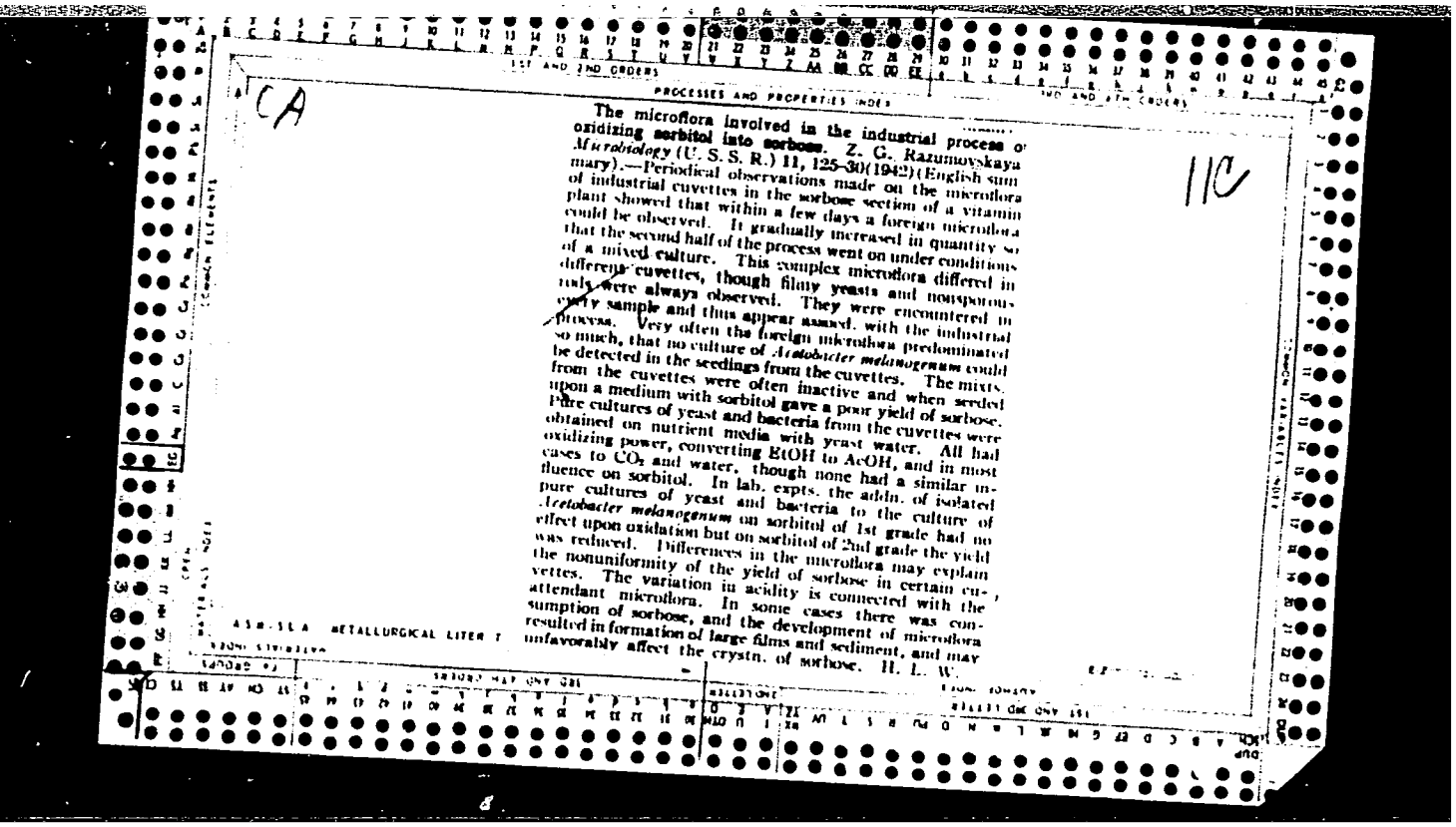


PROCESSES AND PROPERTIES INDEX

Oxidation of sorbitol by bacteria. Z. G. Razumovskaya. *Mikrobiologia. sci. biol.* (U. S. S. R.) **43**, Nos. 2-3, 209-10(in English 210)(1930).—By means of several strains of *B. xylinum* from local museum collections, also isolated from wood shavings and from wine, it was possible to obtain 30–70% yield of sorbose from sorbitol. The max. yield required 25–30 days. This was obtained at 25–28° in a 1% boiled yeast ext. contg. 2% sorbitol and acidified with AcOH to 0.03%.

W. A. Perlzweig

A S M - S L A METALLURGICAL LITERATURE CLASSIFICATION

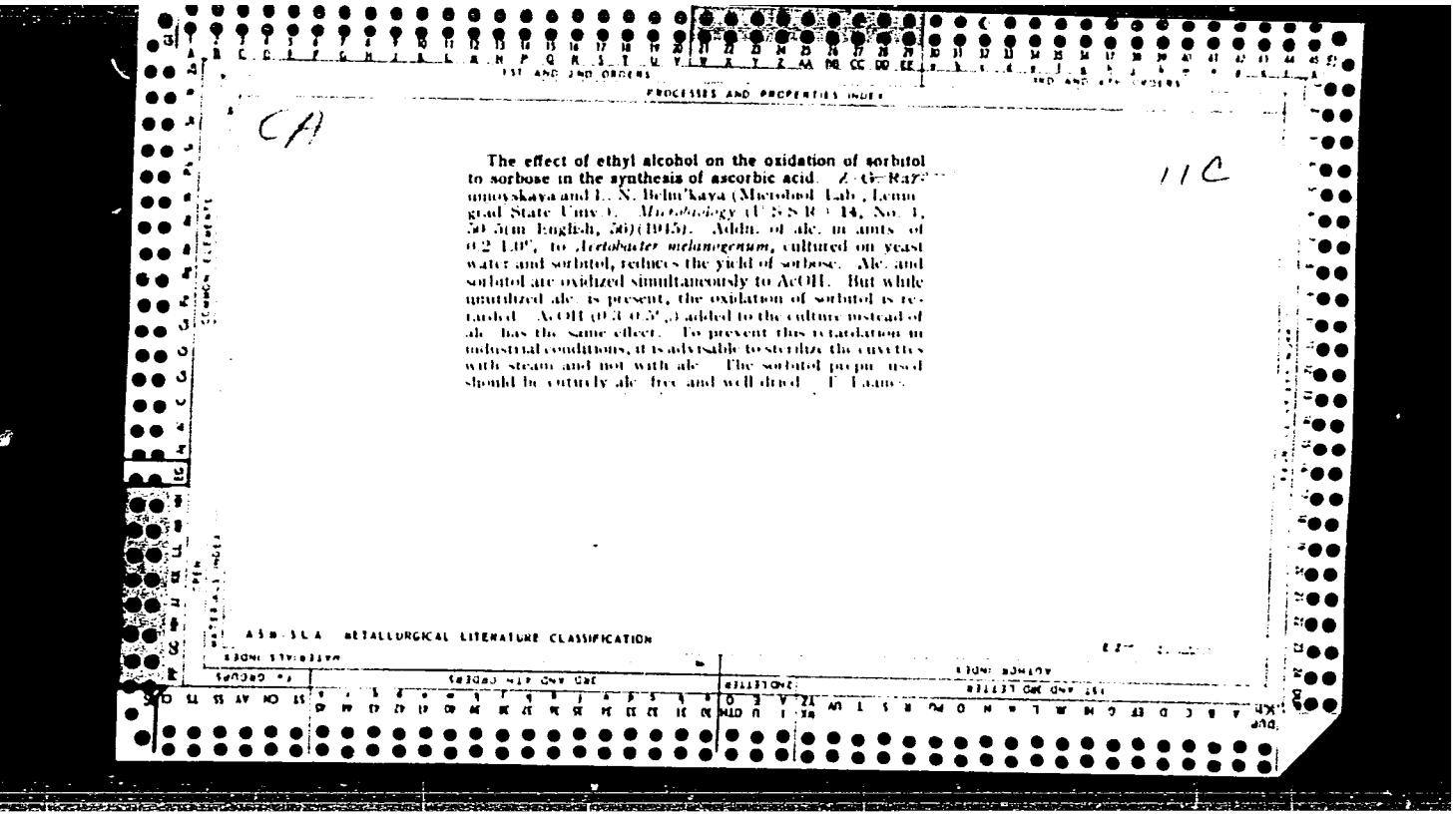


CA

PROCESSES AND PROPERTIES INDEX

11C

The microflora involved in the industrial process of oxidizing sorbitol into sorbose. Z. G. Razumovskaya (*Microbiology* (U. S. S. R.) 11, 125–30(1942)(English summary).—Periodical observations made on the microflora of industrial cuvettes in the sorbose section of a vitamin plant showed that within a few days a foreign microflora could be observed. It gradually increased in quantity so that the second half of the process went on under conditions of a mixed culture. This complex microflora differed in different cuvettes, though filmy yeasts and nonsporous rods were always observed. They were encountered in every sample and thus appear natural with the industrial process. Very often the foreign microflora predominated so much, that no culture of *Acetobacter melanogenum* could be detected in the seedings from the cuvettes. The mixts. from the cuvettes were often inactive and when seeded upon a medium with sorbitol gave a poor yield of sorbose. Pure cultures of yeast and bacteria from the cuvettes were obtained on nutrient media with yeast water. All had oxidizing power, converting EtOH to AcOH, and in most cases to CO_2 and water, though none had a similar influence on sorbitol. In lab. expts. the addn. of isolated pure cultures of yeast and bacteria to the culture of *Acetobacter melanogenum* on sorbitol of 1st grade had no effect upon oxidation but on sorbitol of 2nd grade the yield was reduced. Differences in the microflora may explain the nonuniformity of the yield of sorbose in certain cuvettes. The variation in acidity is connected with the attendant microflora. In some cases there was consumption of sorbose, and the development of microflora resulted in formation of large films and sediment, and may unfavorably affect the crystn. of sorbose. H. L. W.



CA

11C

PROCESSES AND PROPERTIES INDEX

The effect of ethyl alcohol on the oxidation of sorbitol to sorbose in the synthesis of ascorbic acid. Z. G. Raf[illegible] unovskaya and L. N. Belin'kaya (Microbiol. Lab., Leningrad State Univ.). *Microbiology* (U.S.S.R.) 14, No. 1, 50-5(in English, 56)(1945). Addn. of alc. in amts. of 0.2-1.0%, to *Acetobacter melanogenum*, cultured on yeast water and sorbitol, reduces the yield of sorbose. Alc. and sorbitol are oxidized simultaneously to AcOH. But while unutilized alc. is present, the oxidation of sorbitol is retarded. AcOH (0.3-0.5%) added to the culture instead of alc. has the same effect. To prevent this retardation in industrial conditions, it is advisable to sterilize the cultivators with steam and not with alc. The sorbitol prepn. used should be entirely alc.-free and well dried. E. Haase.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

CA

11C

Effect of glucose on oxidation of sorbitol by acetic acid bacteria. Z. G. Razumovskaya and O. A. Vasil'eva (A. A. Zhdanov Univ., Leningrad). *Mikrobiologiya* 19, 121-6(1950).—In oxidation of sorbitol (I) to sorbose (II) by *Acetobacter suboxydans* (III) or *Ac. aceti*, added glucose (IV) competes with I and lessens yield of II. With 2% I and 2% IV in cultures of III, yield of II drops 20%; with 15% I and 3% IV, about 50%. But if $CaCO_3$ is added with IV, yield of II rises (as detd. by the Bertrand method which also measures 5-ketogluconate), sometimes even exceeding theory. As compared with 10% I (no IV), the yield (detd. as cryst. II) from 10% I and 1% IV drops 20% without and 7-10% with $CaCO_3$. J. F. S.

Dept. Microbiology, Leningrad State U.

CA

Microbiology II-C

Relations of acetic acid bacteria to carbon dioxide in high-speed production. Z. G. Razumovskaya and T. Z. Belousova (A. A. Zhdanov State Univ., Leningrad). *Mikrobiologiya* 21, 403-7(1952).—Cultures of *Bact. schuzenbachii* (3 strains from fermenters), in media contg. inorg. nutrients and EtOH, lost their capacity for growth when deprived of CO_2. Agar-mash media without EtOH had no such effect. Cultures fresh from the fermenters were much more sensitive to CO_2 deficiency than after long culturing under lab. conditions.

Julian F. Smith

Razumovskaya, Z. G.

The effect of symbiosis of bean tubercle bacteria on the plant-protein content. Z. G. Razumovskaya and O. A. Vasil'eva. *Nauch. Byull. Leningrad. Univ.* 1954, No. 32, 25–7; *Referat. Zhur. Khim., Biol. Khim.* 1955, No. 1366. The symbiosis of bean plants (lupinus) with tubercle bacteria influences the content of the different types of proteins in the plants.

B. S. Levine

(1)

Chair Microbiology

RAZUMOVSKAYA, Z.G., professor, redaktor; LOYTSYANSKAYA, M.S.; CHIZHIK, G.Ya.; MITYUSHOVA, N.M.; MEL'NIKOVA, G.G., redaktor; IVANOV, V.V., tekhnicheskiy redaktor.

[Manual on laboratory work on microbiology] Rukovodstvo k laboratornym zaniatiiam po mikrobiologii.[Leningrad] Izd-vo Leningradskogo universiteta, 1955. 68 p. (MLRA 8:12)
(Microbiological laboratories)

Razumovskaya, Z. G.

62- Effects of aeration on proliferation and oxidizing activity of Acetobacter suboxydans. Z. G. Razumovskaya and N. M. Mityushova (A. A. Zhdanov State Univ., Leningrad). *Mikrobiologiya* 24, 265–70(1955).—Aeration has little effect on proliferation rate of *A. suboxydans* at low cell counts (around 10^4/ml.); at high counts (around 10^9/ml.) deep aeration will raise proliferation to its peak in about 14 hrs. Shallow aeration takes 24 hrs. or more to reach the peak. Oxidizing activity is enhanced whether the cell count is low or high. In the microbiol. oxidation of sorbitol to sorbose a slow aeration rate is best in the initial stage, with faster aeration and correspondingly higher biochem. oxidation activity at the stage of peak proliferation. Sorbose yields (in mg./ml. of medium) varied with the aeration rate in the first 5 hrs. (in l./hr. passed through 200 ml. of medium) as follows: no aeration, 61.5; 5, 77.8; 10, 86.5; 13, 92.2; 45, 92.3. Julian F. Smith

(1)

RAZUMOVSKAYA Z.G.

F-1

USSR/Microbiology - General Microbiology .

Abs Jour : Ref Zhur - Biol., No 3, 1958, 9750

Author : Razumovskaya, Z.G., Zhdan-Pushkina, S.M.
Inst : -
Title : Characteristics of Sorbose-Forming Bacteria, Depending on Cultivation Conditions.

Orig Pub : Vestn. Leningr. un-ta, 1956, No 15, 107-116

Abstract : Increased aeration exerts an especially powerful effect on bacterial multiplication during the initial hours of culture development and somewhat increases the numbers of bacteria. In media containing little nutrient, the lag-phase is lengthened and the entire process of propagation is very sluggish. An excess of nutrient substances in the lag-phase is also unfavorable to bacterial multiplication, and only in the final hours of culture development does the presence of increased nutrient substance secure an increase in numbers of bacteria. An increase in sorbitol concentration

Card 1/2

USSR / Microbiology. Technical Microbiology.

Abs Jour: Referat Zh.-Biol., No 6, 25 March, 1957, 21886

F-3

dation of sorbitol less actively than bacteria taken at a later stage of culture development. The aeration conditions under which the seeding material was cultivated are of great importance. Bacteria cultivated under conditions of heightened aeration oxidize sorbitol more actively than in the surface method of cultivation. The increase in the final yeast moisture (dry residue 0.95%) reacts negatively on the activity of the planting culture. A medium with an increased concentration of B-complex (5%) is recommended as a nutrient medium for an active planting material for sorbitol production.

Card : 2/2

RAZUMOVSKAYA, Z.G.; LOYTSYANSKAYA, M.S.

Research on the physiology of Acetobacter. Mikrobiologiia 25 no.6: 727-741 N-D '56. (MIRA 10:1)

1. Leningradskiy gosudarstvennyy universitet im. A.A.Zhdanova.
(ACETOBACTER
physiol. & metab., review)

USSR/General Section - History, Classics, Personalities A-2

Abs Jour : Referat Zhurn. Biol. No 16, 25 Aug 1957, 67837

Author : Razumovskaya, Z.G.
Title : In Memory of Professor Nikolai Nikolaevitch Ivanov.

Orig Pub : Uch. zap. LGU, 1956, No 216, 3-4.

Abstract : Note is taken on the 15th anniversary of the death of Ivanov (died in 1940) of studies in the fields of plant biochemistry and also physiology and biochemistry of microorganisms. By his initiative the synthesis of crystalline vitamin C was first undertaken in the USSR.

Card 1/1 - 20 -

RAZUMOVSKAYA, Z.G.

Acetic acid bacteria oxidizing sorbitol to sorbose; survey of literature. Uch.zap.Len.un. no.216:5-22 '56. (MLRA 10:3)
(ACETOBACTER) (SORBITOL) (SORBOSE)

RAZUMOVSKAYA, Z.G.; KONIKOVA, R.Ye.

Oxidation of crude sorbitol by acetic acid bacteria. Uch.zap.Len. un. no.216:23-30 '56. (MLRA 10:3)
(ACETOBACER) (SORBITOL) (SORBOSE)

RAZUMOVSKAYA, Z.G.; AVER'YANOVA, V.V.

Significance of mineral nitrogen in the oxidation of sorbitol to sorbose. Uch.zap.Len.un. no.216:31-37 '56. (MLRA 10:3)
(AMMONIUM SALTS) (SORBITOL)(SORBOSE) ACETOBACTER)

RAZUMOVSKAYA, Z.G.; ZHDAN-PUSHKINA, S.M.

Oxidation of sorbitol to sorbose in a medium with increased concentrations of sorbitol. Uch.zap.Len.un. no.216:38-48 '56. (MLRA 10:3)

(SORBITOL) (SORBOSE) (ACETOBAR)

RAZUMOVSKAYA, Z.G.; VASIL'YEVA, O.A.

Oxidation of glucose by acetic acid bacteria. Uch.zap.Len. un. no.216:57-66 '56. (MLRA 10:3)
(GLUCOSE) (ACETOBACTER)

RAZUMOVSKAYA Z. G.

F-3

USSR/Microbiology - Soil Microbiology.

Abs Jour : Ref Zhur - Biol., No 3, 1958, 9858

Author : Razumovskaya, Z.G., Mustafova, N.N.

Inst :

Title : Observations on Microflora of Podzol Soils of Fir-Groves-Whortleberry and Fir-Groves-Acidulous Soils by Method of Plate overgrowth.

Orig Pub : Uch. zap. GPU, 1956, No 216, 160-169

Abstract : Soil microflora of forest podzol soils were studied by the method of plate overgrowth (of Kholodny). The character of fir-grove soils is described by their horizons; it was established that the number of microflora decreases with the depth of soil layer; that a considerable portion of the microflora in fir-grove podzol soils consists of bacteria; that there are more of the latter in fir-grove-acidulous than fir-grove-whortleberry soils; that in soils treated with KCl the growth of bacteria is markedly inhibited

Card 1/2

USSR/Soil Science - Soil Biology. J

Abs Jour : Ref Zhur Biol., No 19, 1958, 86787

Author : Razumovskaya, Z.G., Vasil'yeva, O.A.

Inst : Leningrad State University.

Title : Effect of Nodule-forming Bacteria on the Chemical Composition of Leguminous Plant Protein.

Orig Pub : Uch. zap. LGU, 1956, No 216, 196-201

Abstract : Lupine plants (2 sorts) were cultivated in a vegetation experiment (sandy cultures) under varied nutrition conditions - in mineral N (Pryanishnikov solution with full rate of N and $\frac{1}{2}$ rate of N) and with the inoculation of nodule-forming bacteria. Root nodules were not found in the plants in mineral N. In the variants with inoculation, root nodules were formed in all plants. When infected with active strains the root nodules were large, pinkish,

Card 1/2

J

USSR/Soil Science - Soil Biology.

Abs Jour : Ref Zhur Biol., No 19, 1958, 86783

Author : Razumovskaya, Z.G., Vasil'yeva, O.A.

Inst : Leningrad State University

Title : Certain Data on the Structure of Lupine Root Nodules Infected with Active and Inactive Strains of Nodule-forming Bacteria.

Orig Pub : Uch. zap. LGU, 1956, No 216, 202-210

Abstract : Microtomic slices (8 to 10 μ) of the roots of lupine with nodules which were formed under the influence of active and inactive strains of nodule-forming bacteria, were studied. The trend of nodule growth was identical in both cases: a bacteroidal tissue, vessels and vascular bundles are formed. The active nodule, however, grows intensively, its bacteroidal tissue occupies considerable space and is filled with

Card 1/2

USSR / General Biology. Evolution. B-6

Abs Jour: Ref Zhur-Biol., No 18, 1958, 81109.

Author : Razumovskaya, Z. G.
Inst : Not given.
Title : Concerning the Species in Microorganisms.

Orig Pub: Vestn. Leningr. un-ta, 1957, No 21, 144-146.

Abstract: The difficulties, originating with the study of species characteristics and intra-species differentiation of microorganisms, were pointed out. However, the considerable material, available at the present time (examples are provided), affirm that, in the world of microorganisms, species and intra-species subdivisions represent the same reality as they appear in other groups of living creatures.

Card 1/1

USSR / Microbiology. General Microbiology. Physiology and Biochemistry. F-1

Abs Jour: Ref Zhur-Biol., No 16, 1958, 71911.

Author : Razumovskaya, Z. G.
Inst : Not given.
Title : On a Discussion of Chemosynthesis.

Orig Pub: Mikrobiologiya, 1957, 26, No 2, 228-231.

Abstract: The author thinks that the materials of Kalinenko's article (RZhBiol, 1957, 49841) provide no grounds for the negation of Vinogradskiy's study of chemosynthesis. In particular, he points out that Kalinenko's experiments in an organic medium without a carbohydrate control are not conclusive; doubts are expressed concerning the purity of the culture of nitrifiers which were available to Kalinenko. It is proposed that Kalinenko's iron bacteria cultures comprised myxotrophic or even heterotrophic organisms. -- A. S. Razumov.

Card 1/1

RODINA, Antonina Gavrilovna,; RAZUMOVSKAYA, Z.G., prof., otv. red.; STRELKOV, A.A., red. izd-va,; TVRVETINOVA, K.S., tekhn. red.

[Micro-organisms and the increase in production of fish in ponds] Mikroorganizmy i povyshenie ryboproduktivnosti prudov. Moskva, Izd-vo Akad. nauk SSSR, 1958. 170 p. (MIRA 11:12)
(Water--Bacteriology)
(Fish ponds)

RAZUMOVSKAYA, Z.G.; OSIPOVA, I.V.

Relationship between the number of living and dead bacteria in a growing Acetobacter melanogemun culture [with summary in English]. Mikrobiologiia 27 no.6:727-732 N-D '58. (MIRA 12:1)

1. Leningradskiy gosudarstvenny universitet imeni A.A. Zhdanova.
(ACETOBACTER, culture,
melanogenum, eff. of dead/living bact. ratio in culture on multiplication (Rus))

RAZUMOVSKAYA, Z.G.

Role of the concentration of substances in the culture medium in the oxidation of sorbitol by acetic acid bacteria. Trudy Inst. mikrobiol. no. 6:46-51 '59. (MIRA 13:10)

1. Leningradskiy Gosudarstvennyy universitet im. Zhdanova.
(SORBITOL) (ACETOBACTER)

RAZUMOVSKAYA, Z.G.; MUSTAFOVA, N.N.

Biological activity of soils in wood-sorrel and whortleberry spruce forests. Vest.LGU 14 no.3:48-56 '59. (MIRA 12:5)
(FOREST SOILS) (SOILS--BACTERIOLOGY)

RAZUMOVSKAYA, Z.G.

Scientific and pedagogical activities of Boris Lavrent'evich Isachenko; on the tenth anniversary of his death. Vest.LGU 14 no.15:145-148 '59. (MIRA 14:4)
(Isachenko, Boris Lavrent'evich, 1871-1948)

RAZUMOVSKAYA, Zinaida Georgiyevna; prof.; CHIZHIK, Genovefa Yakovlevna; GROMOV, Boris Vasil'yevich; PETROVICHEVA, O.L., red.; ZHUKOVA, Ye.G., tekhn.red.

[Laboratory exercises in soil microbiology] Laboratornye zaniatiia po pochvennoi mikrobiologii. Leningrad, Izd-vo Leningr. univ., 1960. 183 p. (MIRA 14:1)
(SOIL MICRO-ORGANISMS)

RAZUMOVSKAYA, Z.G.

Ways of using microorganisms in the synthesis of vitamin C.
Mikrobiologiia 31 no.1:172-178 Ja-F '62. (MIRA 15:3)

1. Leningradskiy gosudarstvennyy universitet imeni Zhdanova.
(ASCORBIC ACID)
(MICROBIOLOGY)

RAZUMOVSKAYA, Z.G.

"Selected works" by Louis Pasteur. Reviewed by Z.G.Razumovskaia.
Mikrobiologiia 31 no.3:570-571 My-Je '62. (MIRA 15:12)
(FERMENTATION) (SCIENCE) (PASTEUR,LOUIS)

RAZUMOVSKAYA, Z.G.

"Investigation of the processes and factors of peat spontaneous heating" by N.N.Strygin. Reviewed by Z.G.Razumovskaia. Torf. prom. 39 no.3:38-39 '62. (MIRA 15:4)
(Peat) (Strygin, N.N.)

RAZUMOVSKAYA, Z.G.; FAN' YUN'-LYU [Fan Yun-liu]

Active and inactive nodules of legumes. Trudy Inst.mikrobiol. no.11:169-176 '61 (MIRA 16:11)

1. Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova.

*

MATYSYAK, V.G.; RAZUMOVSKAYA, Z.I.

Birth injuries of newborn infants and their effect on their development. Akush. i gin. 39 no.4:106-110 Jl-Ag'63 (MIRA 16:12)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. M.A. Petrov-Maslakov) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta i rodil'nogo doma imeni V.F.Snegireva (glavnyy vrach A.A. Dodor).

[illegible]

4. [illegible], I. [illegible] Burmovskaya-[illegible] Laso, I. I. [illegible] vegetativnykh [illegible] Trudy Kiyevsk, nauch. - ir led [illegible]sikhonevrol in-ta, T. XII, 1949, s. - 183-89

[illegible]: Letopis' Zhurnal'nykh Statey, Vol. 44, Moskva, 1949

RAZUMOVSKAYA-KOLUKALO, L. P.

Mental disorders in intracranial aneurysms. Zhur. nevr. i psikh. 64 no.8:1205-1210 '64. (MIRA 17:12)

1. Otdel organicheskoy psikhopatologii (zaveduyushchiy - prof. A.L. Abashev-Konstantinovskiy) Ukrainskogo instituta neyrokhirurgii (direktor - prof. A.L. Arutyunov), Kiyev.

RAZUMOVSKAYA-MOLUKALO, L.P.

Disorders of unconditioned and conditioned reflex functions in the acute stage of non-penetrating cerebrocranial injuries. Vop.neirokhir. 19 no.2:27-33 Mr-Ap '55. (MLRA 8:7)

1. Iz Instituta neirokhirurgii Ministerstva zdravookhraneniya USSR.
(BRAIN, wounds and injuries,
concussion, conditioned and unconditioned reflex funct. in)
(WOUNDS AND INJURIES,
brain concussion, conditioned & unconditioned reflex funct. in)
(REFLEX, CONDITIONED, in various diseases,
brain concussion)
(REFLEX,
unconditioned in brain concussion)

RAZUMOVSKAYA-MOLUKALO, L.P.

Characteristics of psychopathologic disorders and disorders of unconditioned reflex functions in diencephalic tumors. Zhur. nevr. i psikh. 54 no.6:537-543 Je '54. (MLRA 7:7)

1. Nauchno-issledovatel'skiy institut neyrokhirurgii Ministerstva zdravookhraneniya USSR.

(DIENCEPHALON, neoplasms,
*manifest., psychopathol. disord. & unconditioned reflex funct.)
(REFLEX,
*unconditioned, in diencephalic tumors)
(MENTAL DISORDERS, etiology and pathogenesis,
*diencephalic tumors)

ABASHEV-KONSTANTINOVSKIY, A.L.; RAZUMOVSKAYA-MOLUKALO, L.P.

Some peculiarities of the syndromes of deafening and pathological sleep in brain tumors. Probl.neirokhir. 4:67-84 '59. (MIRA 13:11)
(BRAIN--TUMORS)
(PERSONALITY, DISORDERS OF)

RAZUMOVSKIY, A.

Light portable television camera dolly. 1ShTOP. Tekh.kino i telev. 4 no.9:38 S '60. (MIRA 13:9)
(Television stations--Equipment and supplies)

RAZUMOVSKIY, A.

Portable television camera dolly ShTP-1. Tekh.kino i telev. 4 no.9:57 S '60. (MIRA 13:9)
(Television stations--Equipment and supplies)

RAZUMOVSKIY, A., mekhanik

Tractor for work on seedlings. Sel'.mekh. no.3:34 '62.
(MIRA 15:3)

1. Sovkhoz Belidzhinskiy, Dagestanskaya ASSR.
(Tractors) (Seedlings)

ACC NR: AP6029062 SOURCE CODE: UR/0413/66/000/014/0100/0101

INVENTOR: Razumovskiy, A. F.; Babkin, N. V.

ORG: None

TITLE: An ultrasonic inspection head with depth scanning of the focal spot. Class 42. No. 184000

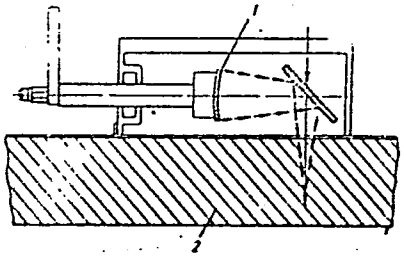
SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 100-101

TOPIC TAGS: ultrasonic inspection, piezoelectric transducer

ABSTRACT: This Author's Certificate introduces an ultrasonic inspection head with depth scanning of the focal spot. The unit may be used in the contact or immersion modification. The instrument contains a focusing piezoelectric element and a hollow reflecting mirror which may be set at any angle to the surface in contact with the article being inspected. The focusing piezoelectric element-emitter may be moved parallel to the plane in contact with the article for scanning of the focal spot with respect to depth.

Card 1/2 UDC: 620.179.16

ACC NR: AP6029062



1—piezoelectric element; 2—article

SUB CODE: 13,20/ SUBM DATE: 30Jul65

Card 2/2

RAZUMOVSKIY,A.F.

Automatic clinker spraying. TSement 21 no.2:25 Mr-Ap '55.
(MLRA 8:8)

1. Volkhovskiy tsementnyy zavod.
(Cement industries)

RAZUMOVSKIY

242. THE APPLICATION OF THE METHOD OF SUCCESSIVE INTEGRATION TO MAGNETIC SYSTEMS STABILISED MAGNETICALLY BY PARTIAL DEMAGNETISATION. Razumovski. (*Izvestiya Elektroprom. Slab. Toka*, No. 11, 1940, pp. 56-58.)

Up to the present the design of magnetic systems by the method of successive integration has been used only in the case of systems magnetised after assembly and not subjected to any further operations. In this paper the use of the method is extended to systems which have been stabilised magnetically by partial demagnetisation. To do this it is necessary to determine the characteristic of the magnet corresponding to the instant when it is subjected to the action of the demagnetising field. Methods are indicated for obtaining the characteristic when the system is stabilised (a) by d.c., and (b) by a.c. with a decreasing amplitude. The discussion is illustrated by a numerical example.

RAZUMOVSKIY

The Design by the Method of Successive Integration of Magnets assembled after Magnetisation Razumovski (*Izvestiya Akad. Nauk SSR, Otdel. Tekh. Nauk*, No. 11, 1956, pp. 91–94)

The method of successive integration for calculating the magnetic induction of a magnetic circuit is applied in the case of a circuit made up of previously magnetised elements. As an illustration of the method, a horseshoe magnet with a short-circuiting armature (Fig. 1) is considered. Referring to a previous work [2] of the author, considerable differences are pointed out between the magnetic properties of the systems under consideration and those of systems magnetised after assembly and then reduced by partial demagnetisation. Experimental curves are plotted, generally confirming the theoretical calculations.

RAZUMOVSKIY, A. N., LIPOVSKIY, A. A., KALITEYEVSKIY, N. I., ZAYDEL, A. N., and YAKIMOVA, P. P.

"Spectral Analysis of the Gd, Eu, and Sm Content of Metals," by A. N. Zaydel', N. I. Kaliteyevskiy, A. A. Lipovskiy, A. N. Razumovskiy, and P. P. Yakimova, Vestnik Leningradskogo Universiteta, Vol 11, No 4, Oct-Dec 56, pp 18-40

In the introduction to the article, it is pointed out that a number of rare earth elements including Gd, Eu, and Sm have exceptionally large cross sections of thermal neutron capture (38,000 barns for Gd, 2,500 barns for Eu, and 8,000 barns for Sm), which are equaled only by that of Cd (2,800 barns) and that consequently many materials must be freed of even the smallest trace of these elements. To accomplish this, sensitive methods of analysis are required: the sensitivity of the determinations must be no less than of the order of 0.0001%. It is stated that although two US papers on the spectroscopic determination of small amounts of rare earths in uranium and one US paper on the determination of rare earths in zirconium have been published, a reliable, universally applicable method for the determination of rare earths in metals is lacking.

The authors then say that work on the development of a suitable method for this purpose was conducted at their laboratory during the period 1949-1954, and proceed to outline the results of this work, which dealt with the development of a set of analytical procedures based on emission spectroscopy. They first discuss the method of concentration of rare earth elements used by them, which involves introduction of lanthanum that acts as a carrier. A general section on the spectral analysis of the concentrates obtained by the method described follows. A detailed description of the determination of traces of Gd, Eu, and Sm in thorium is then given. According to the description, the rare earth elements are separated from thorium before the spectral analysis by extracting the nitrates with ether. The effects on the analytical procedure of impurities consisting of iron, aluminum, silicon, chromium, and cerium are discussed. The procedure for the determination of Gd, Eu. and Sm in uranium, which is described in the next section, is essentially the same as that for thorium.

In the section on the determination of Gd, Eu, and Sm in beryllium, the statement is made that beryllium oxide which is used in nuclear power technology must be pure, and that the determination of traces of Gd, Eu, and Sm in beryllium is therefore of considerable practical importance. Separation of the rare earths (including the La carrier) from Be in the procedure described is achieved by precipitation with oxalic acid from a $BeCl_2$ solution with the use of calcium as an additional carrier.

In connection with the description of the procedure for the determination of Gd, Eu, and Sm in bismuth, it is stated that Bi has a small cross section of thermal neutron capture and can be used as a reactor coolant. Under the circumstances, according to the article, procedures by which one may check for the presence in bismuth of rare-earth elements with a large cross section of neutron capture are essential. Separation of the rare-earth elements from bismuth is effected by the hydrolytic decomposition of bismuth chloride during the course of electrolysis.

The section on the determination of rare-earth impurities in zirconium is introduced by the statement that zirconium is used as a construction material for nuclear reactors, because it has a small cross section of thermal neutron capture and a sufficiently high stability at high temperatures. According to the article, zirconium for nuclear reactor applications must be free of rare-earth elements with a large neutron capture cross section. The chemical procedure for the separation of the rare earth elements from zirconium, which is based on the precipitation of Zr in the form of its phosphate and that of the rare earth elements in the form of their oxalates, is rather complicated. It is described in detail and illustrated with a chart.

In conclusion the authors say that the results of the work done by them on the determination of Gd, Eu, and Sm in Th, U, Be, Bi, and Zr confirm the advisability of using the analytical procedure which they have developed. They add that they have also done work on the determination of rare earth elements in Fe, Al, and Mg in connection with investigations on the rare-earth content in soils and checked the possibility of applying their method in the determination of Gd, Eu, and Sm in Cu. They found that the sensitivity of the determination of Gd, Eu, and Sm in all the metals mentioned above amounted to approximately 10^{-5}%, and that this sensitivity can be increased still further by subjecting larger samples to analysis. For the reasons stated, they assume that the method used by them is satisfactory and generally applicable for the purpose of determining rare-earth elements in metals.

Sm 153

USSR/Soil Science - Physical and Chemical Properties of Soil. J

Abs Jour : Ref Zhur Biol., No 19, 1958, 86767

Author : Zaydel', A.N., Kaliteyevskiy, N.I., Razumovskiy, A.N.

Inst : Leningrad University.

Title : Determination of the Content of Certain Rare-Earth Elements in Soils.

Orig Pub : V.sb.: Primeneniye metodov spektroskopii v prom-sti prodovol'stvennykh tovarov i s.kh., L., LGU, 1957, 29-35. Diskus. 35-38

Abstract : A method of determining the content of La, Nd, Gd, Eu, Sm in soils, based on chemical concentration and subsequent spectral analysis of soil specimens. The procedure is described in chemical concentration of soil specimens with the indicated elements. As carrier and internal standard 100 to 200 mg. La are introduced in the test sample.

Card 1/2

RAZUMOVSKIY, A. N.

AUTHORS: Kaliteyevskiy, N. I., Razumovskiy, A. N. 89-12-12/29

TITLE: Spectroscopic Analysis of Small Actinium Samples (Spektral'nyy analiz malykh prob aktiniya)

PERIODICAL: Atomnaya Energiya, 1957, Vol. 3, Nr 12, pp. 548-55o (USSR)

ABSTRACT: The actinium spectrum was stimulated in a glass bulb with 5 appendages, 3 of which served as light conductors. Before each light conductor a different spectrograph was installed, namely: for the ultra-violet part the spectrograph S-24, for the visible part the spectrograph I.S.P.51 was used. For the area 37oo-5ooo Å the spectrograph KS-55 with optics from glass was inserted.
The following actinium lines were registered:

Nr	in Å	Intensity	Nr	in Å	Intens.	Nr	in Å	Intens.
1	2726,3	3	19	3o76,4	2	37	3237,8	6
2	2729,1	2	2o	3o76,8	2	38	326o,5	1o
3	2753,1	2	21	3o78,1	6	39	3317,9	5
4	276o,1	3	22	3o84,9	2	4o	3322,5	3
5	2731,7	3	23	3o85,9	5	41	3331,4	2
6	2797,6	5	24	3o87,9	4	42	3383,5	6
7	28o4,4	4	25	3111,6	2	43	3392,8	1o
8	2833,5	2	26	3112,8	8	44	3417,6	1o
9	2846,7	8	27	3118,9	3	45	346o,9	2

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Spectroscopic Analysis of Small Actinium Samples. 89-12-12/29

1o	2856,2	2	28	313o,5	2	46	3481,o	1o
11	2895,2	3	29	3153,2	8	47	3489,5	8
12	2896,7	5	3o	3154,5	9	48	3539,5	4
13	2952m9	1o	31	3164	8	49	3555,o	5
14	2994,3	1o	32	3171,3	3	5o	3565,5	1o
15	3oo1,8	2	33	3176,8	2	51	3756,6	6
16	3o19,5	7	34	32o2,1	2	52	3885,5	5
17	3o43,4	1o	35	32o4,9	3	53	3915,1	4
18,	3o69,4	7	36	3219,3	4	54	4o34,5	4

There are 6 references, 5 of which are Slavic.

SUBMITTED: February 16, 1957

AVAILABLE: Library of Congress

Card 2/2

5(2) PHASE I BOOK EXPLOITATION SOV/1727

Akademiya nauk SSSR. Institut geokhimii i analiticheskoy khimii

Redkozemel'nyye elementy; polucheniye, analiz, primeneniye (Rare Earth Elements; Extraction, Analysis and Application) Moscow, Izd-vo AN SSSR, 1958. 331 p. 2,200 copies printed.

Resp. Ed.: D. I. Ryabchikov, Professor; Editorial Board: I. P. Alimarin, Corresponding Member, USSR Academy of Sciences, I. N. Zaozerskiy, Doctor of Chemical Sciences, R. V. Koglyarov, Candidate of Technical Sciences, V. I. Kuznetsov, Doctor of Chemical Sciences, M. M. Senyavin, Candidate of Chemical Sciences, and Yu. S. Sklyarenko, Candidate of Chemical Sciences; Eds. of Publishing House: D. N. Trifonov and T. G. Levi; Tech. Ed.: S. G. Markovich.

PURPOSE: This book is intended for scientists, chemists, teachers and students of higher educational institutions, chemical and industrial engineers, and other persons concerned with the extraction, preparation, use, or study of rare earth elements.

COVERAGE: This collection contains reports presented at the June 1956 Conference on Rare Earth Elements at the Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy of the Academy of Sciences USSR. The articles treat chemical methods of separating rare earth mixtures, methods of processing rare earth ores, ion exchange chromatography, chemical analysis, and some industrial applications of rare earths. Aside from contributing authors, the editors mention the following Soviet scientists, who are studying rare earth elements, rare earth deposits, extraction methods, and the preparation of oxides and salts: Martynov, Mel'nikov, Khrushchev, Malikov, Pisarzhevskiy, Chernyak, Tanatar, Belousov, Zhukov and especially, N. A. Orlov, who first obtained the majority of rare earth elements in the pure state, separated many complex molecular compounds of these elements, and determined their specific properties. References are given at the end of each article.

TABLE OF CONTENTS:

Rare Earth Elements; Extraction, (......)

Card 9/11

ZAYDEL', A.N.; KALITEYEVSKIY, N.I.; LIPOVSKIY, A.A.; RAZUMOVSKIY, A.N.; YAKIMOVA, P.P.

Spectrochemical determination of Gd, Eu, and Sm in metals. Fiz.sbor. no.4:37-40 '58. (MIRA 12:5)

1. Fizicheskiy institut Leningradskogo ordena Lenina gosudarstvennogo universiteta imeni A.A.Zhdanova.
(Gadolinium--Spectra) (Europium--Spectra) (Samarium--Spectra)

AUTHORS: Kaliteyevskiy, N. I., Lipovskiy, A. A., 75-13-3-24/27
Razumovskiy, A. M., Yakimova, P. P.

TITLE: Spectroscopic Analysis by Means of Evaporation (Spektral'nyy analiz metodom ispareniya). Communication 6. The Determination of Cadmium, Germanium, Indium, Gallium, Gold, Antimony and Lead in Pitchblende (Soobshcheniye 6. Opredeleniye kadmiya, germaniya, indiya, galliya, zolota, sur'my i svintsa v zakisi-okisi urana)

PERIODICAL: Zhurnal analiticheskoy khimii, 1958, Vol 13, Nr 3, pp 372-373 (USSR)

ABSTRACT: The principles for methods of evaporation were published in earlier papers (References 1-3). The possibility was also shown to determine admixtures of other elements in the difficultly volatile oxides U_3O_8, Al_2O_3, ThO_2, BeO_2 in this manner. The main condition for the efficiency of an evaporation method is a sufficiently high difference in the liquids among the admixtures to be determined and the chief component. In the present paper an evapora-

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Spectroscopic Analysis by Means of Evaporation. 75-13-3-24/27
Communication 6. The Determination of Cadmium, Germanium, Indium, Gallium, Gold, Antimony and Lead in Pitchblende

tion method for the determination of a number of liquid elements (Cd, In, Ge, Ga, Au, Sb, Pb) in pitchblende is worked out. Experimental data on the evaporation of the admixtures were already described earlier (Reference 1). The evaporation is performed at the air, as on heating in a vacuum a decomposition of U_3O_8 under formation of the more easily volatile UO_3 takes place. In the determination of $\sim 3 \cdot 10^{-5}\%$ cadmium and indium difficulties arose. At 1600-1700°C an intensive evaporation of CdO occurs, but it is not complete, as cadmium is anew deposited at the electrode on a temperature rise to 1900-2000°C. For avoiding a systematic error the evaporation must therefore by all means be performed at $\sim$2000°C. This temperature is also sufficient for completely expelling all oxides of all other elements to be determined (In, Ge, Ga, Au, Sb, Pb) and is not high enough to cause a marked evaporation of U_3O_8. For the determination of

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Spectroscopic Analysis by Means of Evaporation. 75-13-3-24/27
Communication 6. The Determination of Cadmium, Germanium, Indium, Gallium, Gold, Antimony and Lead in Pitchblende

Cd, In and Sb weighed portions of 2oo mg U_3O_8 had to be made.
When dividing this amount into four portions and four times evaporating the admixtures at the same electrode a more intensive blackening of the respective spectral lines occurs than in works with the total amount. The division therefore increases the sensitivity, but considerably retards the analysis. The technical data of the spectroscopic analysis of the sublimates are given in the paper.
As the sensitive lines of the elements to be determined lie in different parts of the spectrum it is expedient, simultaneously to photograph the spectrum on 2 spectrographs (ISP -22 or Q-24 and ISP -51). For the line In I (4511,3 Å) silver electrodes were used, as on copper electrodes this line of indium is overlapped by the intensive line Cu 4509,4 Å. For recording the line Cd II (2265 Å) which lies in the distant ultraviolet special photographic plates ("spektral'nyye", type III) were used. The

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Spectroscopic Analysis by Means of Evaporation. Communication 6. The Determination of Cadmium, Germanium, Indium, Gallium, Gold, Antimony and Lead in Pitchblende

75-13-3-24/27

mean quadratic error of an individual determination of one of the above-mentioned elements does not exceed 15-20%. The analytical lines of the individual elements used for the determinations and the different sensitivities are given. A. N. Zaydel' gave valuable advice, G. G. Kuid performed the control experiments.
There are 1 figure, 1 table, and 3 references, 3 of which are Soviet.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova
(Leningrad State University imeni A. A. Zhdanov)

SUBMITTED: February 7, 1957

1. Evaporation--Applications 2. Pitchblende--Spectrographic analysis

Card 4/4

RAZUMOVSKIY, A.N.

5(2) PHASE I BOOK EXPLOITATION SOV/2402

Akademiya nauk SSSR. Institut geokhimii i analiticheskoy khimii

Redkozemel'nyye elementy; polucheniye, analiz, primeneniye (Rare Earth Elements; Production, Analysis, and Use) Moscow, Izd-vo AN SSSR, 1959. 331 p. 5,000 copies printed.

Resp. Ed.: D. I. Ryabchikov, Professor; Eds. of Publishing House: D. N. Trifonov and T.G. Levi; Tech. Ed.: S. G. Markovich; Editorial Board: I. P. Alimarin, Corresponding Member, USSR Academy of Sciences, I. N. Zaozerskiy, Doctor of Chemical Sciences, N. V. Kotlyarov, Candidate of Chemical Sciences, V. I. Kuznetsov, Doctor of Chemical Sciences, M. M. Senyavin, Candidate of Chemical Sciences, and Yu. S. Sklyarenko, Candidate of Chemical Sciences.

PURPOSE: This book is intended for chemists in general and for geochemists and analytical chemists in particular.

COVERAGE: This collection of articles consists of reports presented at the Rare Earth Elements Symposium held in June 1956 at the Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy. The book may be divided into three sections: the characteristics, uses and production of rare earth elements (REE); the methods of analyzing REE; and the application of individual rare earth elements and REE mixtures in the glass and metallurgical industries, and their use as catalysts. Considerable space is devoted to the application of ion-exchange chromatography in the production of pure forms of all rare earth elements. The combinations of this method with other methods in separating REE on an industrial scale are discussed by D. I. Ryabchikov, Yu. S. Sklyarenko, and M. M. Senyavina. Chemical methods of separating REE compounds are discussed by I. N. Zaozerskiy (who is said to be the first in the USSR to develop methods of processing REE), V. P. Kotlyarov, L. F. Andreyeva, A. V. Nikolayev, and G. P. Aleksandrov. Quantitative X-ray spectral analytical methods are described by E. Ye. Vaynshteyn, and chemical methods of analysis by I. P. Alimarin and F. I. Pavlotskaya. The determination of REE impurities in pure products and atomic materials are discussed at length in these articles by A. N. Zaydel' and his associates. All articles are accompanied by photographs, diagrams, tables, and bibliographic references.

S/051/61/010/001/003/017
E201/E491

11.4130

AUTHORS: Zaydel', A.N., Razumovskiy, A.N. and Chayka, M.P.

TITLE: A Spectroscopic Analysis of the Isotopic Composition of Lithium

PERIODICAL: Optika i spektroskopiya, 1961, Vol.10, No.1, pp.15-18

TEXT: The authors describe a spectroscopic method for analysis of the isotopic composition of lithium, based on measurements of the component intensities of a resonance doublet at 6707.8 Å. A hollow-cathode discharge tube was used as the light source. It is shown schematically in Fig.1. The isotopic structure was recorded using a Fabry-Perot interferometer. To separate out the required line, a diffraction-grating monochromator was employed. The optical part of the apparatus is shown in Fig.2, where 1 and 5 are slits, 2, 4, 6 and 9 are objectives, 3 is a diffraction grating, 7 is a Fabry-Perot interferometer enclosed in a chamber 8, 10 is an iris diaphragm, 11 is a receiver (a photomultiplier ФЭУ-22 (FEU-22)). The pressure in the chamber 8 was varied periodically, using an automatic

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A Spectroscopic Analysis of the Isotopic Composition of Lithium

control device (Fig.3). The signal from the photomultiplier was passed to a d.c. amplifier and then to an automatic recorder ЭПП-09 (EPP-09). An example of the records obtained is given in Fig.4 for a sample containing 2% Li^6. Neglecting self-absorption and other effects, the concentrations were calculated from

$$\frac{C_{Li6}}{C_{Li7}} = \frac{I_b}{I_a} - \frac{1}{2}$$

where I_b, I_a are the intensities of the components of the 6707.8 Å line shown in Fig.5. A calibration curve used in calculations is given in Fig.6. The sensitivity of the method described here was 0.5% Li^6. The errors were represented by a coefficient of variation of 0.15 to 0.7% for Li^6 contents from 40 to 90%. The time required for each analysis was 10 to 15 min and the minimum amount of lithium was 5 to 10 μg (0.05 mg LiCl).

S/051/61/010/001/003/017
E201/E491

A Spectroscopic Analysis of the Isotopic Composition of Lithium

Acknowledgments are made to T.N.Krylova for preparation of the interferometer plates and G.M.Malyshev for help in some stages of this work. The work was carried out in 1956-7. There are 6 figures and 10 references: 4 Soviet and 6 non-Soviet (one of which is translated into Russian).

SUBMITTED: January 21, 1960 (to the Editor of "Atomnaya Energiya")
April 16, 1960 (to the Editor of "Optika i Spektroskopiya")

Card 3/3

S/032/62/028/001/002/0[illegible]7
B125/B138

AUTHORS: Zil'bershteyn, Kh. I., Kaliteyevskiy, N. I., Razumovskaya, A. N., Fedorov, Yu. F.

TITLE: Hollow-cathode discharge for analysis of impurities in silicon

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 1, 1962, 43-45

TEXT: The authors studied the spectrum analysis of impurities in silicon with the aid of a hollow thermionic cathode. These impurities were concentrated by treating Si powder with fluoric and nitric acid vapors on a teflon film. Teflon films with a standard and with the test specimen were put at the bottom of a hollow carbon cathode which was heated to 550°C. On complete volatilization of the teflon specimen and standard became attached to the bottom of the cathode. The spectra were taken by a hollow-cathode discharge in a helium current (10 - 15 mm Hg, discharge amperage 900 ma), using an ИСП-22 (ISP-22)-spectrograph and type СП-2(SP-2) photographic plates. The spectral lines of both the volatile and non-volatile impurities had maximum intensity at 800 - 1000ma.

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S/032/62/028/001/002/017
B125/B138

Hollow-cathode discharge for ...

Since the impurity elements in the teflon could not be determined accurately enough by the present method the silicon powder contained in the two half cylinders of a hollow cathode (Fig. 1) was pretreated by acid vapors. The impurity concentrate was attached to the interior of the cathode by two drops of a solution of polystyrene in benzene. Discharge in a composite hollow cathode takes place in the same way as in an ordinary one. The spectral lines of the volatile impurities Zn, Pb, In have maximum intensity at 400 - 600 ma, but remain almost constant when the amperage is further increased. Those of the less volatile impurities Fe, Ni, Mn, Mg and others have maximum intensity at 800 - 1000 ma. The totality of the elements was therefore determined at 800 - 900 ma with a 2 min discharge. Screens between the cathodes prevented undesirable side effects. Under the conditions described, the absolute accuracy of quantitative analysis is $3 \cdot 5 \cdot 10^{-10}$ g Ag, Mn, Cu; $6 \cdot 10^{-10}$ g Ga, In; $(3-5) \cdot 10^{-9}$ Gg Al, Ni; $(6-7) \cdot 10^{-9}$ g Mg, Fe. The accuracy of the Mg, Al, Fe, Cu determination depends on the traces of these elements in the cathode material. Reproducibility is poor. The measuring arrangement is similar to that of Yu. I. Korovin, L. V. Lipis (Optika i spektroskopiya, 5, 3, 334

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L 20181-65 EWG(j)/EWA(k)/EBD/EWT(1)/EWT(m)/EPF(c)/EEC(k)-2/EEC(t)/T/EWP(t)/
EEC(b)-2/EWP(k)/EWP(b)/EWA(d)-2/EWA(h) Pn-4/Po-4/Pf-4/Pr-4/Peb/P1-4/P1-4
SSD(c)/SSD/AFWL/ASI(a)-5/ASM(p)-2/RAEM(a)/ESD(gs)/ESD(t)/IJP(c) WG/JD
ACCESSION NR: AP4041833 S/0054/64/000/002/0040/0046

AUTHOR: Kaliteyevskiy, N. I.; Razumovskiy, A. N.; Chayka, M. P.; Cherenkovskiy, V. A.

TITLE: Experiments with gaseous Lasers

SOURCE: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no. 2, 1964, 40-46

TOPIC TAGS: gaseous laser, continuous gaseous laser, laser beam structure, helium neon laser, stimulated emission

ABSTRACT: The authors have experimented with a continuous gas laser (Ne:He=1:7) working on a wavelength of 1.15 μ which corresponds to the 2s-2p transition in neon. The study consisted of an investigation of; 1) the intensity of the generated power (stimulated radiation) as a function of the input power, the diameter of the discharge tube, and of gas pressure; 2) the contribution to radiation of the various parts of the discharge; and 3) the structure of the generated beam. It was confirmed in the author's experiments that the intensity of the generated beam reaches a maximum with increase of the input power, and then decreases. In addition to the 1.15 μ line, the 1.16 μ line (much weaker than 1.15) was also

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ACCESSION NR: AP4041833

observed with a diffraction grating. It disappears at very high input. The photograph of the beam shows a ring regardless of the adjustment of the lens. This is explained by the coherence of the stimulated radiation. Orig. art. has: 8 figures.

ASSOCIATION: None

SUBMITTED: 17Jan64 ENCL: 00

SUB CODE: EC NO REF SOV: 003 OTHER: 001

Card 2/2

RAZUMOVSKIY, A.N.; CHAYKA, M.P.

Measuring isotopic shifts on the resonance line of barium. Opt. i spektr. 12 no.3:338-343 Mr '62. (MIRA 15:3)
(Barium--Isotopes) (Barium--Spectra)

ZIL'BERSHTEYN, Kh.I.; KALITEYEVSKIY, N.I.; RAZUMOVSKIY, A.N.; FEDOROV, Yu.F.

Use of discharge in a hollow cathode for the analysis of impurities in silicon. Zav.lab. 28 no.1:43-45 '62. (MIRA 15:2)

1. Institut khimii silikatov.
(Silicon--Spectra)
(Electric discharges through gases)

S/051/62/012/003/002/016
E032/E314

AUTHORS: Razumovskiy, A.N. and Chayka, M.P.

TITLE: Measurement of the isotopic shifts on the resonance line of barium

PERIODICAL: Optika i spektroskopiya, v. 12, no. 3, 1962, 338 - 343

TEXT: The authors report measurements of the isotopic shift of λ 5535.6 Å BaI ($6s^2\,{}^1S_0 - 6sp\,{}^1P_1$), using highly-enriched separated isotopes. Instead of the usual photographic method, the hyperfine structure was recorded photo-electrically. The main object of the present paper is to describe the experimental methods employed to reduce random and systematic errors. The photo-electric recording of the barium line was carried out with the aid of the method described in an earlier paper (Ref. 5 - Kaliteyevskiy, N.I., Malyshev, G.M. and Chayka, M.P. - Opt. i spektr., 6, 820, 1959). A Fabry-Perot etalon with a separation of 7 cm and reflection coefficient of the order of 93% was employed. An invar separator was used to reduce the temperature

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effect. An analysis is given of the effect of temperature and pressure changes on the position of the recorded maxima. Devices are described whereby these changes may be compensated in practice. The measured isotopic shifts are as follows: 0(Ba^{138}), +5.7(Ba^{137}), +4.2(Ba^{136}), +7.6(Ba^{135}) and +4.7(Ba^{134}). The corresponding results reported by J.E. Mack (Phys.Rev., 109, 820, 1958 - Ref. 4) are said to have been 0, +4.7, +3, +6.7 and +5, respectively. The present results are said to be more reliable because enriched specimens were used and all the systematic errors were excluded. Acknowledgments are expressed to N.I. Kaliteyevskiy and E.Ye. Fradkin who took part in this work. There are 5 figures and 4 tables.

SUBMITTED: March 11, 1961

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KAZUMOVSKIY, A. P.

PHASE I BOOK EXPLOITATION SOV/4143

Avtomatizatsiya mekhanicheskoy obrabotki v Leningradskoy promyshlennosti (Automation of Mechanical Machining Processes in Leningrad Industry) Moscow, Mashgiz, 1959. 358 p. Errata slip inserted. 4,000 copies printed.

General Ed.: I.M. Kucher; Reviewers: N.V. Reshetikhin, Candidate of Technical Sciences, Docent, and Ye. V. Miller, Candidate of Technical Sciences, Docent; Eds. of Publishing House: T.L. Leykina and M.A. Chfas; Tech. Ed.: O.V. Speranskaya; Managing Ed. for Literature on Machine-Building Technology (Leningrad Division, Mashgiz): Ye. P. Naumov, Engineer.

PURPOSE: This book is intended for technical personnel.

COVERAGE: The book deals with the automation of mechanical machining processes in small-lot production in Leningrad industry. The use of hydraulic copying slide rests is explained, and practical experience in the introduction of copying slide rests into leading Soviet plants is described. The improvement of such slide rests, the technical and economic effects resulting from their usage, and methods of designing master forms are discussed. New designs of hydraulic slide rests are described. Emphasis is laid upon problems of program control, especially for the simplest control systems, and a number of the original systems are described. Automation problems involved in the group machining method are investigated. No personalities are mentioned. There are 57 references: 46 Soviet and 11 English.

AVAILABLE: Library of Congress

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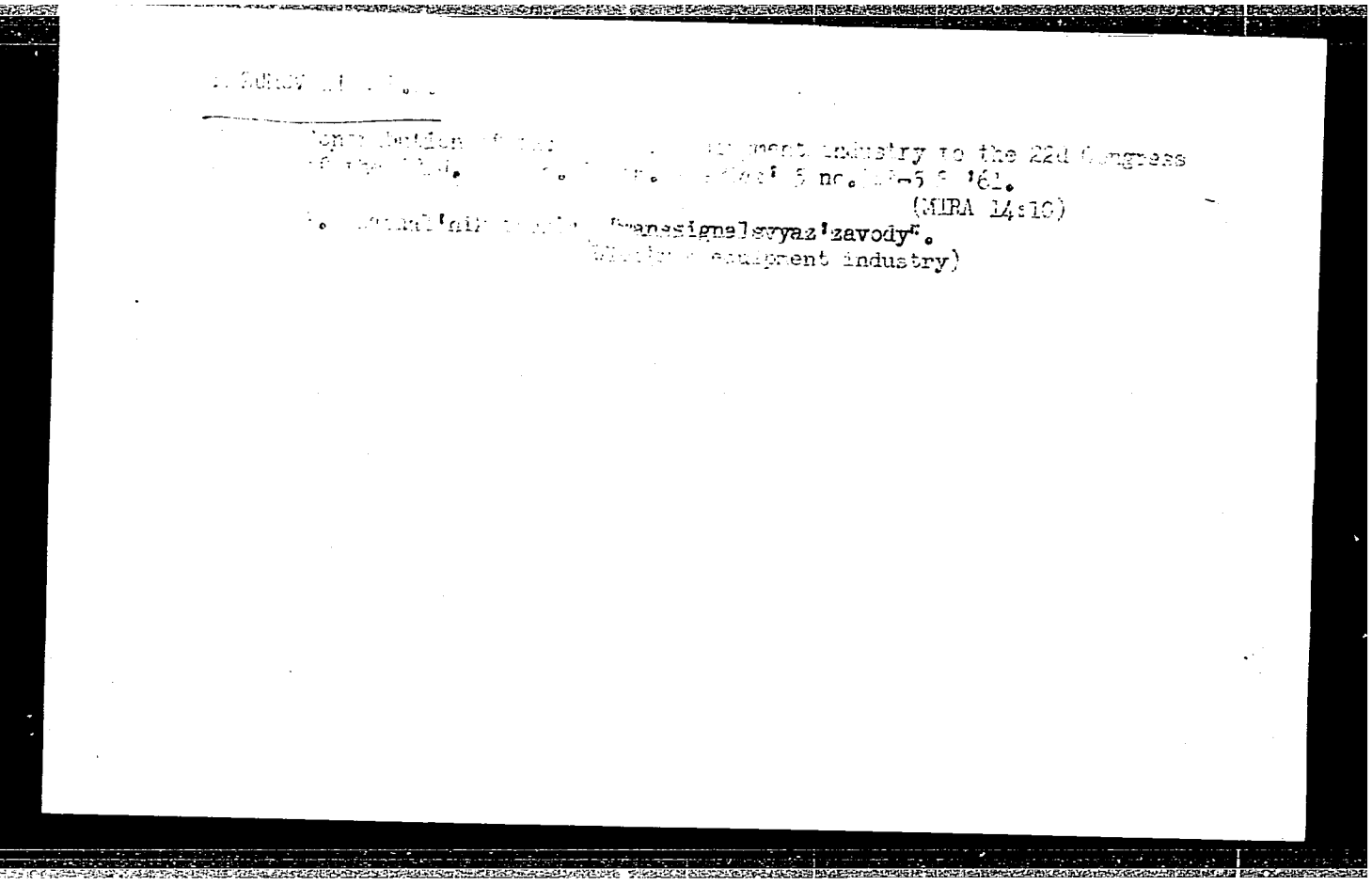

[redacted], L.I., [redacted]; RAGUZIN, A.A., kand. tekhn. nauk; [redacted], L.I., inzh.; ZAYANOVA, T.M., inzh.; ARTEMENKO, V.D., [redacted].

Removal of synthetic surface-active agents from the waste water in [redacted] tanks. Vod. i san. tekh. no.9:5-8 S '65. (MIRA 18:9)

RAZUMOVSKIY, E.S., inzh.

Purification of waste water from cotton enterprises at urban sewage treatment plants. Vod.i san.tekh. no.3:13-15 Mr '62. (MIRA 15:8)

(Industrial wastes) (Textile factories)

RAZUMOVSKIY, E.S.

Purifying the waste water of textile enterprises. Sbor. nauch. rab. AKKH no.6:88-104 '61. (MIRA 15:3)
(Textile factories) (Industrial wastes)